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EXAMINER MAGLOIRE, VLADIMIR				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/511,106

Applicant(s)

HURTTA, TUIJA

Examiner

VLADIMIR MAGLOIRE

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Examiner acknowledges receipt of amended claims and arguments filed on 7/13/09.
2. The amendment to claim 16 have overcome the 35 USC 112 rejection of claim 16, therefore the 35 USC 112 rejection of claim 16 is withdrawn.

Information Disclosure Statement

3. The information disclosure statement filed 10/15/2009 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Response to Arguments

4. Applicant's arguments, with respect to the 35 USC 102(a) and 35 USC 103(a), filed 7/13/09 have been fully considered but they are not persuasive.
5. Applicant's arguments, with respect to the double patenting rejection of claim 20, filed 7/13/09 have been fully considered and is persuasive, therefore the double patenting rejection has been withdrawn.
6. The applicant argues that TR 23.846, Leroy and Mizell fail to describe or suggest, at least, "providing to a first switching node information indicating a number of connections required between a second switching node and a plurality of terminal devices; and determining based on said provided information a number of connections

to be set up between said first switching node and said second switching node of a data network to set up a broadcast or multicast transmission to the plurality of terminal devices,".

7. Furthermore, the applicant also argues that "a number of connections" means that plural connections are set up for one multicast/broadcast multimedia service.

8. The Examiner respectfully disagrees with the applicant assertions and arguments.

a. With regards to determining "a number of connections", if one connection is used between the GGSN and SGSN, which was established as a result of a SGSN request, then a number of connections have been determined. Setting up one connection may appear trivial however is required as shown in section 7.4 step 6 and section 7.5 step 11, where TR23846 discusses first checking if there is an existing MBMS connection and if not creating a connection, therefore determining that a connection is required, which is made between the GGSN and the SGSN. Furthermore, as disclosed in TR23846 section 6.1.4, the SGSN establishes a single connection between the SGSN and the GGSN for each individual MBMS service, based on service requirements of the radio service area which the SGSN keeps track of as shown in section 6.1, 6.1.1 and 6.1.2. Therefore TR23846 is discussing setting up "providing to a first switching node information indicating a number of connections required between a second switching node and a plurality of terminal devices; and determining based on said provided information a number of connections to be set up between said first

switching node and said second switching node of a data network to set up a broadcast or multicast transmission to the plurality of terminal devices"

9. Therefore the rejection of claims 1 to 20 is maintained as follows:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

1. Claims 1-9 and 12-15 are rejected under 35 U.S.C. 102(a) as being anticipated by 3GPP TR 23.846 (1/2002 Prior art Date provided by Applicant) (**TR23846**).

Consider claim 1, TR23846 discloses a method (**see TR23846, sections 1, 5.1 and fig. 1 of section 6.1, discloses a method of broadcasting multimedia services to a plurality of users via a SGSN "second switching node" and a GGSN "first switching node"**) comprising:

providing to a first switching node information indicating a number of connections required between a second switching node and a plurality of terminal devices (**see TR23846, section 6.1.1 discloses that the SGSN is responsible for setting up MBMS service and generates charging data per service per individual user, section 6.1.2 discloses that the GGSN provides charging data collection and tunneling of data, fig. 1 discloses that the SGSN and the GGSN are connected via the Gn interface via multiple tunnels, also see section 6.1.2 "...The tunnelling separates the traffic of the different MBMS services from each other A GGSN could simplify O&M when used to provide the parameters for the individual MBMS services at the service negotiation when the GTP tunnels**

are established. This approach has limitation when different configurations are required for the same service (potentially one SGSN has to provide different MBMS data for the same service in different areas, e.g. regional news). Then it has to be configured differently on the SGSN", (therefore multiple tunnels) and lastly section 6.1.4 discloses "Besides the user individual service control functions comparable to the functions already provided by an SGSN or GGSN there are some additional functions required for MBMS, mainly the specific data transport. It is assumed, that the SGSN performs the user individual service control, generates the charging data per user and establishes the RABs when MBMS data is to transfer. The SGSN concentrates all user individual services into one MBMS service for each specific MBMS service. This includes the establishment of a number of RABs to transfer MBMS data to the radio network entities of the related service area and it includes a single connection between the SGSN and the GGSN for each individual MBMS service. The SGSN duplicates the data received from the GGSN for each RAB established for the service. Similarly, the GGSN duplicates data received from the MBMS source for each GTP tunnel related to the same MBMS service" and lastly section 7.1 discloses "... data is then multicast to the SGSNs with registered multicast users.". therefore the SGSN provides the GGSN the number of MBMS connections currently being serviced);
and

determining based on said provided information a number of connections to be set up between said first switching node and said second switching node of a data network to set up a broadcast or multicast transmission for a broadcast or multicast service to the plurality of terminal devices (see TR23846, section 6.1.4, discloses providing MBMS service via GTP tunnels, wherein the GTP tunnels are established between the SGSN and GGSN, therefore a number of connections had to be determined, even if that number of connections is just one tunnel as also disclosed in section 7.5 step 11).

Consider claim 12, TR23846 discloses a system comprising (see TR23846, sections 1, 5.1 and fig. 1 of section 6.1, discloses a system for broadcasting multimedia services to a plurality of users via a SGSN “second switching node” and a GGSN “first switching node”),

a first switching node (see TR23846, fig. 1 “SGSN”); and

a second switching node (see TR23846, fig. 1 “GGSN”),

wherein the first switching node is configured to set up an initial connection to said second switching node (see TR23846, section 6.1, fig. 1, discloses “The GGSN terminates the MBMS GTP tunnels from the SGSN...”, therefore the SGSN and the GGSN connect via the Gn interface, which can be set up by the SGSN)

wherein said second switching node is configured to transmit to said first switching node via an initial connection an information indicating the number of connections required between said second switching node and a plurality of devices (see TR23846, section 6.1.1 discloses that the SGSN is responsible for setting up MBMS service and generates charging data per service per individual user, section 6.1.2 discloses that the GGSN provides charging data collection and tunneling of data, fig. 1 discloses that the SGSN and the GGSN are connected via the Gn interface via multiple tunnels, also see section 6.1.2 “..The tunnelling separates the traffic of the different MBMS services from each other A GGSN could simplify O&M when used to provide the parameters for the individual MBMS services at the service negotiation when the GTP tunnels are established. This approach has limitation when different configurations are required for the same service (potentially one SGSN has to provide different MB/9IS data for the same service in different areas, e.g. regional news). Then it has to be configured differently on the SGSN”, and lastly section

6.1.4 discloses *“Besides the user individual service control functions comparable to the functions already provided by an SGSN or GGSN there are some additional functions required for MBMS, mainly the specific data transport. It is assumed, that the SGSN performs the user individual service control, generates the charging data per user and establishes the RABs when MBMS data is to transfer. The SGSN concentrates all user individual services into one MBMS service for each specific MBMS service. This includes the establishment of a number of RABs to transfer MBMS data to the radio network entities of the related service area and it includes a single connection between the SGSN and the GGSN for each individual MBMS service. The SGSN duplicates the data received from the GGSN for each RAB established for the service. Similarly, the GGSN duplicates data received from the MBMS source for each GTP tunnel related to the same MBMS service.”*; **therefore the SGSN provides the GGSN the number of MBMS connections currently being serviced); and**

wherein said first switching node is configured to determine based on said information a number of connections to be set up between said first switching node and said second switching node to set up a broadcast or multicast transmission for a broadcast or multicast service to said plurality of terminal devices **(see TR23846, section 6.1.4, discloses providing MBMS service via GTP tunnels, wherein the GTP tunnels are established between the SGSN and GGSN, therefore a number of connections had to be determined, even if that number of connections is just one tunnel as also disclosed in section 7.5 step 11).**

Consider claim 2, TR23846 discloses method according to claim 1, wherein said number of connections to be set up between said first and second switching nodes is determined to be equal to said number of connections indicated by said provided information **(see TR23846, section 6.1.4).**

Regarding claim 3, the limitations have been analyzed in claim 1.

Consider claim 4, TR23846 a method according to claim 1, wherein said connections are tunnel connections **(see TR23846, section 6.1.2, discloses GTP tunnels establishment between GGSN and SGSN).**

Consider claim 5, TR23846 discloses a method according to claim 1, wherein said providing comprises setting up an initial connection between said first and second switching nodes and transmitting said information from said second switching node to said first switching node in response to a request of said first switching node **(see TR23846, section 7.4 steps 6 and 7, discloses typical interaction between the SGSN and GGSN).**

Consider claim 6, TR23846 discloses a method according to claim 5, wherein said information is transmitted in a response message to a context activation request **(see TR23846, section 7.4 steps 6 and 7).**

Consider claim 7, TR23846 discloses a method according to claim 5, wherein said information is transmitted in a response message to an identification request issued by said first switching node **(see TR23846, section 7.4 steps 6 and 7).**

Consider claim 8, TR23846 discloses a method according to claim 7, wherein a context activation for said determined number of connections is requested by said first switching node in response to the receipt of said response message **(see TR23846, section 7.4 steps 6 and 7).**

Consider claim 9, TR23846 discloses a method according to claim 7, wherein a context activation for said determined number of connections is requested by said

second switching node after the transmission of said response message (**see TR23846, section 7.4 steps 6 and 7**).

Consider claim 13, TR23846 discloses a system according to claim 12, wherein said first switching node is a gateway general packet radio services support node and said second switching node is a serving general packet radio services support node (**see the analysis of claim 12**).

Consider claim 14, TR23846 discloses a system according to claim 12, wherein said second switching node is configured to transmit said information in a response message to a context activation request issued by said first switching node (**see TR23846, section 7.4**).

Consider claim 15, TR23846 discloses a system according to claim 12, wherein said second switching node is configured to transmit said information in a response message to a identification request issued by said first switching node (**see TR23846, section 7.4**).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over TR23846 in view of Leroy (EP 1071296 A1).

Consider claim 16, TR23846 discloses an apparatus (**see TR23846, fig. 1 of section 6.1, discloses an apparatus**) comprising:

at least one processor (**the GGSN or the SGSN must contain at least one processor to enable the system disclosed in section 6 of TR23846**),

causing:

request in order to derive information indicating a number of connections required between other a switching node and a plurality of terminals devices (**see TR23846, section 6.1.1 discloses that the SGSN is responsible for setting up MBMS service and generates charging data per service per individual user, section 6.1.2 discloses that the GGSN provides charging data collection and tunneling of data, fig. 1 discloses that the SGSN and the GGSN are connected via the Gn interface via multiple tunnels, also see section 6.1.2 “..The tunnelling separates the traffic of the different MBMS services from each other A GGSN could simplify O&M when used to provide the parameters for the individual MBMS services at the service negotiation when the GTP tunnels are established. This approach has limitation when different configurations are required for the same service (potentially one SGSN has to provide different MBMS data for the same service in different areas, e.g. regional news). Then it has to be configured differently on the SGSN”, and section 6.1.4 discloses “Besides the user individual service control functions comparable to the functions already provided by an SGSN or GGSN there are some additional functions required for MBMS, mainly the specific data transport. It is assumed, that the SGSN performs the user individual service control, generates the charging data per user and establishes the RABs when MBMS data is to transfer. The SGSN concentrates all user individual services into one MBMS service for each specific MBMS service. This includes the establishment of a number of RABs to transfer MBMS data to the radio network entities of the related service area and it includes a single connection between the SGSN and the GGSN for each**

individual MBMS service. The SGSN duplicates the data received from the GGSN for each RAB established for the service. Similarly, the GGSN duplicates data received from the MBMS source for each GTP tunnel related to the same MBMS service.”, therefore the SGSN provides the GGSN the number of MBMS connections currently being serviced also see TR23846, section 7.4 step 6, 7 where TR23846 discloses a requesting process to setup up MBMS services); and

determine based on said derived information a number of connections to be set up to said switching node to set up a broadcast or multicast transmission for one multicast/broadcast multimedia service to said plurality of terminal devices (see TR23846, section 6.1.4, discloses providing MBMS service via GTP tunnels, wherein the GTP tunnels are established between the SGSN and GGSN, therefore a number of connections had to be determined, even if that number of connections is just one tunnel as also disclosed in section 7.5 step 11).

TR23846 does not specifically disclose at least one memory including computer program code, wherein the at least one memory and the computer program code are configured to, with the at least one processor.

However, computer code stored in a memory and processors that implement functionality of switches were well known in the art at the time of the invention, and furthermore to implement a system which keeps track of at least charging, MBMS usage, tunneling would require a computer code and processor.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include in the MBMS system disclosed in TR23846 at least one

memory including computer program code, wherein the at least one memory and the computer program code are configured to, with the at least one processor.

TR23846 does not specifically disclose accessing a memory table.

Leroy discloses accessing a memory table (**see Leroy, paragraphs [0025-0028, 0030], fig. 3 “routing table”**).

Given that Leroy discloses the well known technique of accessing a memory table in a MBMS system, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify TR23846 by specifying the well known technique of accessing a routing table, as taught by Leroy.

Consider claim 10, TR23846 discloses a method according to claim 1, wherein said providing step comprises the steps of storing said information in a memory table accessible by said first switching node (**see the analysis of claim 16**).

4. Claims 11, 17 to 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over TR23846 in view of Mizell (US 7,289,462 B1: hereinafter “Mizell”).

Consider claim 17, TR23846 discloses an apparatus (**see TR23846, fig. 1 of section 6.1, discloses an apparatus**) comprising:

at least one processor (**the GGSN or the SGSN must contain at least one processor to enable the system disclosed in section 6 of TR23846**);

TR23846 discloses determining, using a multicast address or a multicast area identification, information indicating a number of connections required between switching node and a plurality of terminal devices (**see TR23846, section 6.1.1, 6.1.2, 6.1.5 discloses the SGSN determines the number of RAB and the number of users**

requiring a particular MBMS service, and that each MBMS context is identified via a IP multicast address).

based on said information a number of connections to be set up to said switching node to set up a broadcast or multicast transmission for one multicast/broadcast multimedia service to said plurality of terminal devices **(see TR23846, section 6.1.4, discloses providing MBMS service via GTP tunnels, wherein the GTP tunnels are established between the SGSN and GGSN, therefore a number of connections had to be determined, even if that number of connections is just one tunnel as also disclosed in section 7.5 step 11 and section 7.4 step 6).**

TR23846 does not specifically disclose at least one memory including computer program code, wherein the at least one memory and the computer program code are configured to, with the at least one processor.

However, computer code stored in a memory and processors that implement functionality of switches were well known in the art at the time of the invention, and furthermore to implement a system which keeps track of at least charging, MBMS usage, tunneling would require a computer code and processor.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include in the MBMS system disclosed in TR23846 at least one memory including computer program code, wherein the at least one memory and the computer program code are configured to, with the at least one processor.

TR23846 does not specifically disclose query, using a multicast identification or a multicast area identification, from an address server.

In the same field of endeavor, Mizell discloses query from an address server to determine MBMS service **(see Mizell, fig. 4)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify TR23846 by querying an address server, as taught by Mizell, thereby creating a more efficient request process (see Mizell, Col 2, lines 52 to 67).

Consider claim 11, TR23846 discloses a method according to claim 1, wherein said providing comprises performing a query to an address server using an identification information or an area identification information of said broadcast or multicast transmission **(see the analysis of claim 17)**.

Consider claim 18, the combination of TR23846 and Mizell disclose an apparatus according to claim 17, wherein said address server is a domain name server **(see Mizell, fig. 5 item 508 and 512, discloses querying a DHCP server, as opposed to a DNS server, however it would have obvious to specify a DNS server since a DNS and DHCP servers are commonly combined)**.

Consider claim 19, the combination of TR23846 and Mizell discloses an apparatus according to claim 16 or 17, wherein said switching node is a gateway general packet radio services support node **(see Claim 17 analyses)**.

Consider claim 20, the combination of TR23846 and discloses an apparatus according to claim 17, wherein said switching node is a gateway general packet radio services support node **(see Claim 17 analyses)**.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VLADIMIR MAGLOIRE whose telephone number is (571)270-5144. The examiner can normally be reached on Monday to Thursday, 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on 571-272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NICK CORSARO/
Supervisory Patent Examiner, Art Unit 2617

/Vladimir Magloire/
Examiner, Art Unit 2617 11/18/09